ABSTRACT

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Title of diploma thesis: Results of coprological diagnosing in sheep (*Ovis ammon* f. *aries*) infected by model parasite and treated by selected anthelmintic.

Anthelmintic resistence is currently a serious problem in breeding of many species of farm animals, it restricts their health condition and subsequent productivity of breeding. The mechanisms leading to the formation of anthelmintic resistence are being studied. One of the long term used parasitic models is *Haemonchus contortus*. This blood-sucking nematode belongs to the most important originators of parasitic infections in sheep and goats.

The aim of this thesis was to describe a course of parasitoses experimentally induced by two differently susceptible strains of *Haemonchus contortus* in sheep by parasitological methods. The animals in each study were dewormed with albendazole suspension (dose of 30 mg/kg bw) or monepantel suspension (dose of 2.5 mg/kg bw). Then they were infected by strains ISE (fully susceptible to anthelmintics) and WR (fully resistant to anthelmintics) with L_3 larvae of *Haemonchus contortus*. The number of eggs in samples of animal faeces was determined by the quantitative ovoscopical method and other genera of endoparasites were identified by the qualitative ovoscopical method. During the first and the second experiment, flubendazole was administered in three days in various doses to induce anthelmintic resistance. The interval from 16 to 26 days between the infecting of the animals with L_3 larvae and the excretion of eggs was detected. At the end of each experiment the animals were euthanized and the adults of *Haemonchus contortus* were isolated from their abomasa. These adult parasites were subsequently used for further *ex vivo* testing on anthelmintic resistence (Department of Biochemical Sciencies Faculty of Pharmacy, Charles University in Hradec Králové).